

Fig. 1

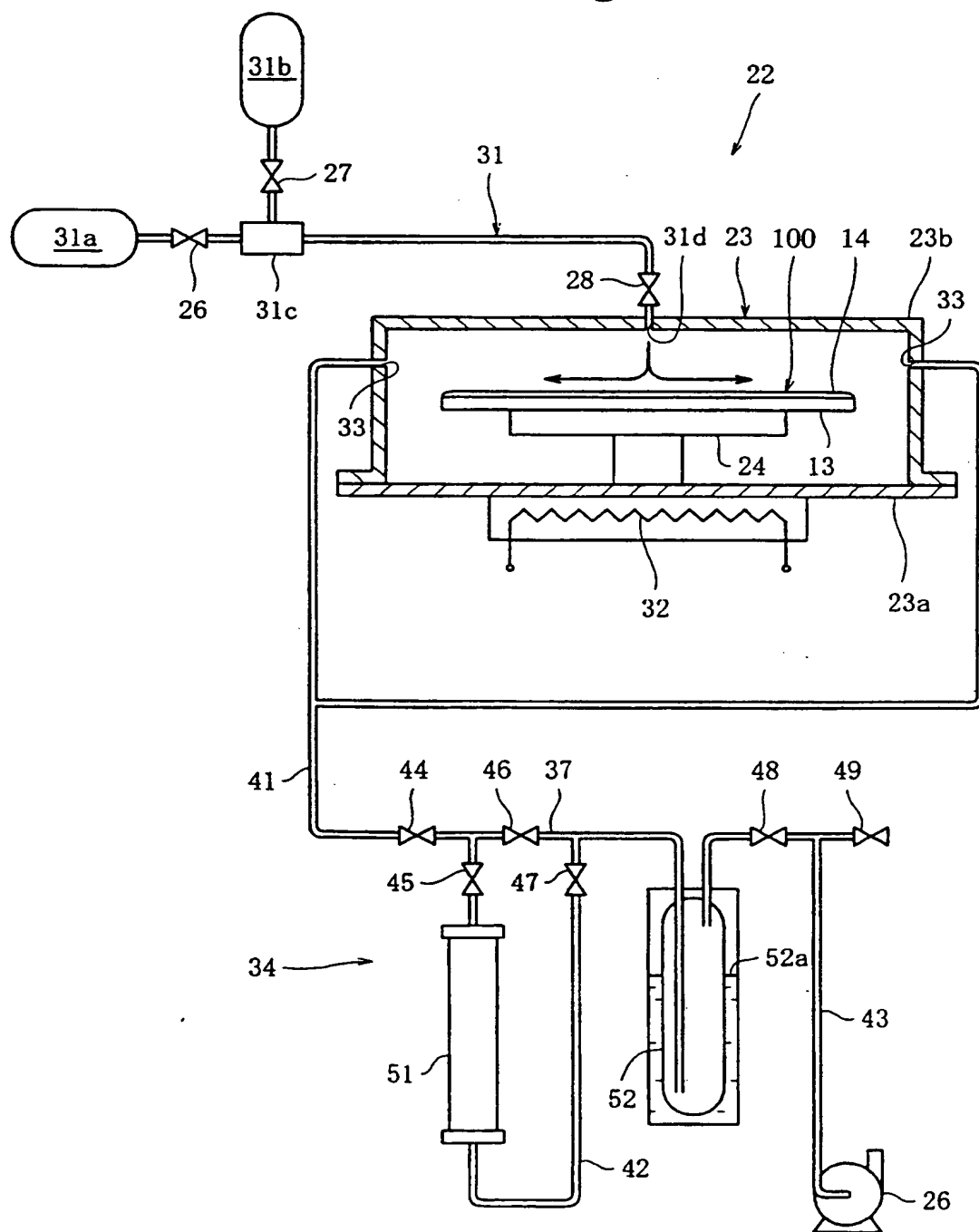


Fig. 2

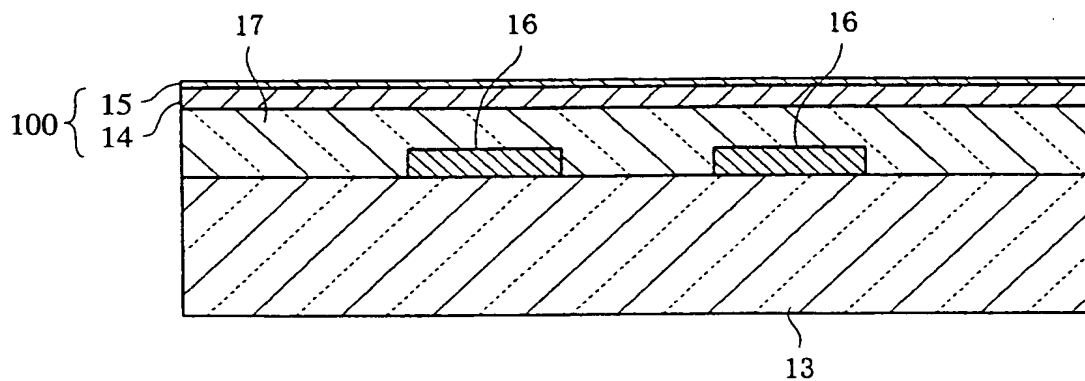


Fig. 3

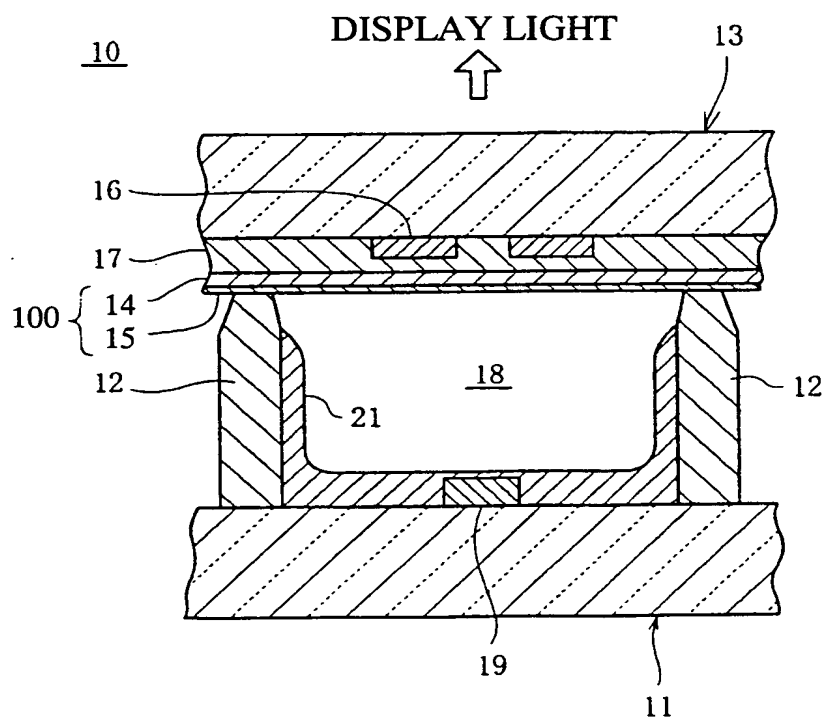
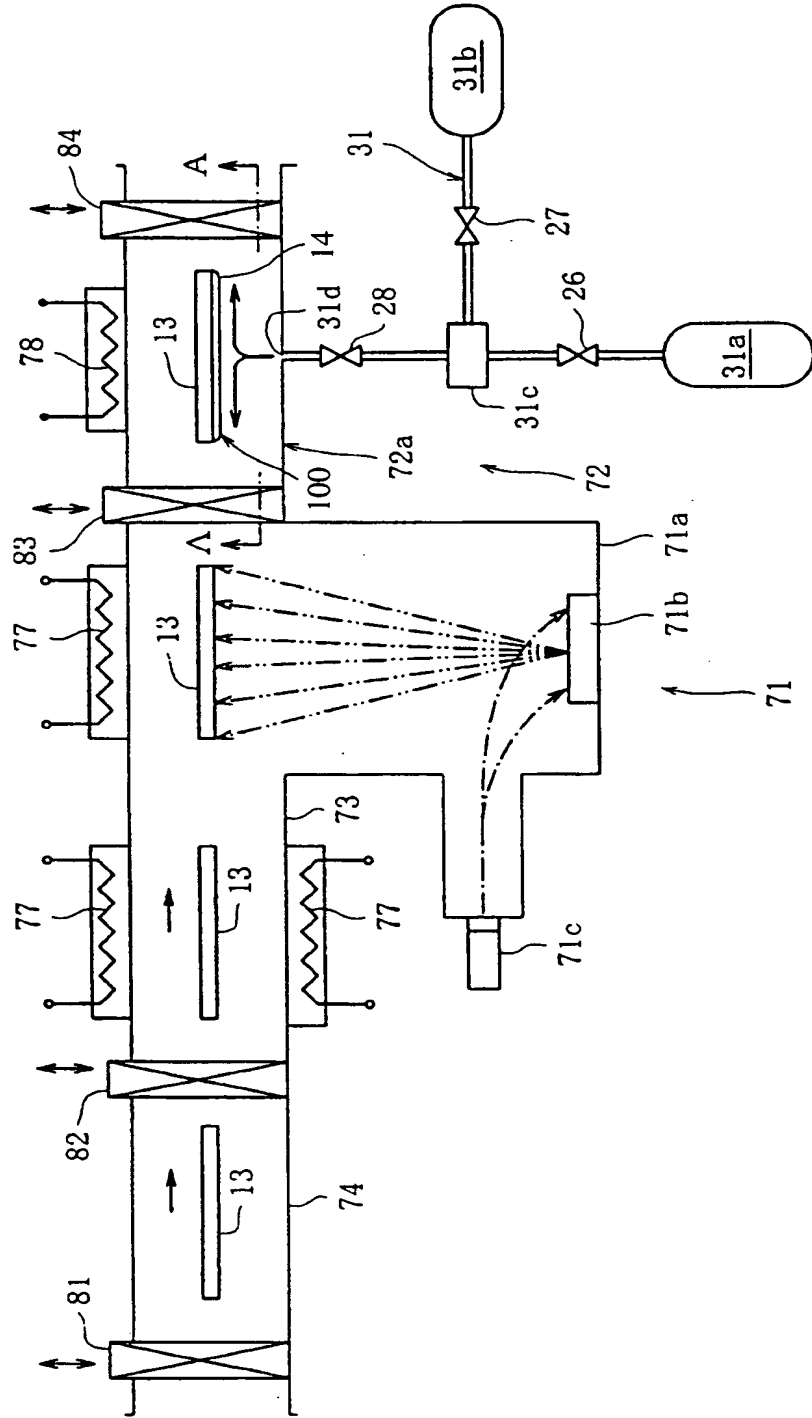


Fig. 4



The schematic diagram illustrates a gas processing system integrated with a plasma reactor. On the left, three vertical columns represent gas supply sources, each equipped with a valve (81, 82, 83) and a flow control mechanism (77). These feed into a central horizontal chamber (74) containing a substrate (13). The chamber is also connected to a side inlet (73) with its own valve (77). A gas outlet (71c) leads from the bottom of the chamber to a pump or venting system (71b, 71a). Above the chamber, a separate gas delivery system is shown. It includes two gas cylinders (31a, 31b), valves (26, 27, 31), and a mass flow controller (41). This system feeds into a mixing manifold (92) which has multiple outlets (92a, 92b, 92c) leading directly to the reaction zone above the substrate (13). A dashed circle labeled 72a indicates the specific area where the gas jets impinge on the substrate. Other components include a temperature sensor or heater element (Δ) near the substrate and various connecting pipes and valves (100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150).

Fig. 6

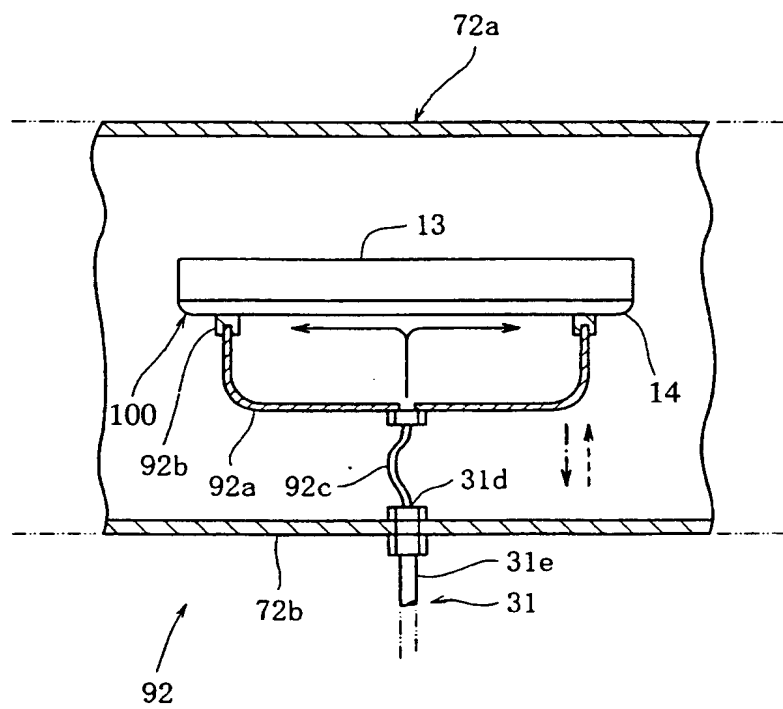


Fig. 7

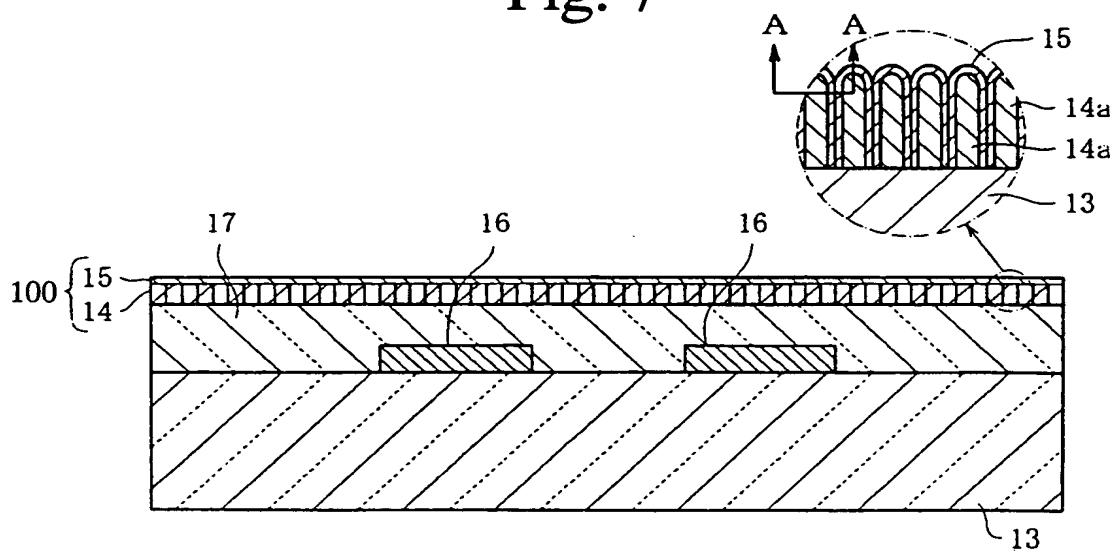


Fig. 8

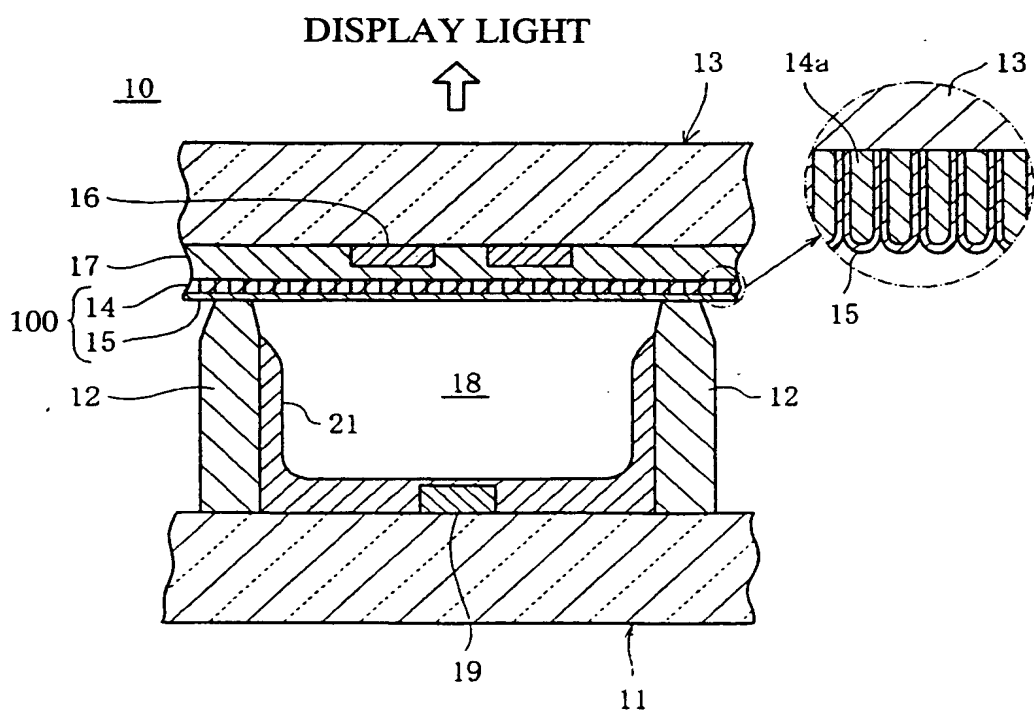


Fig. 9

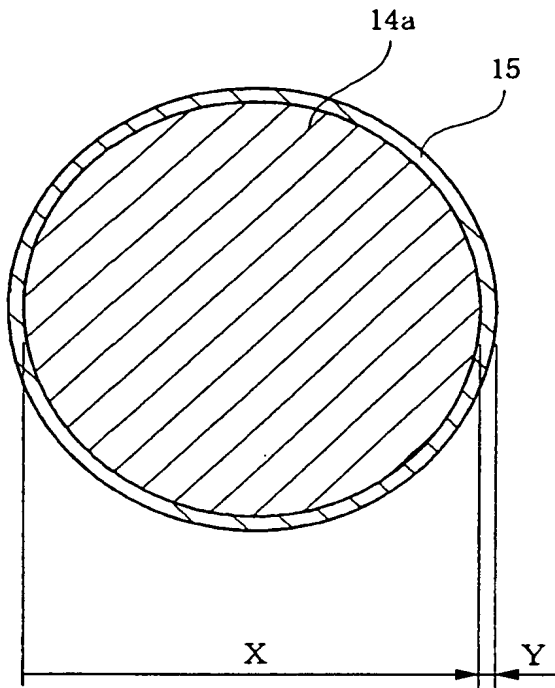


Fig.10

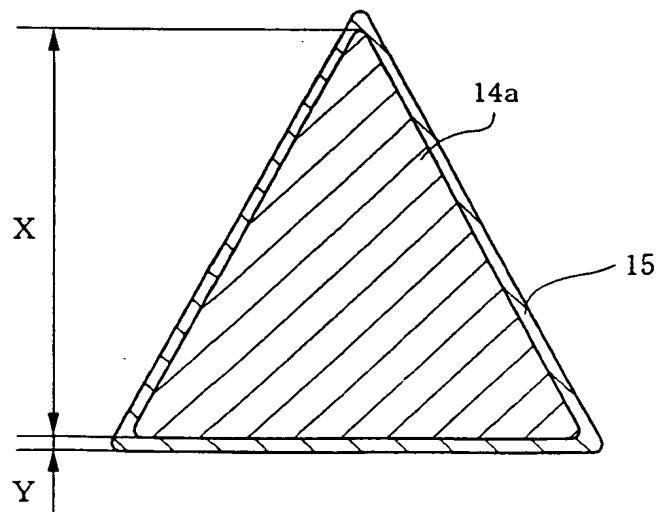


Fig. 11

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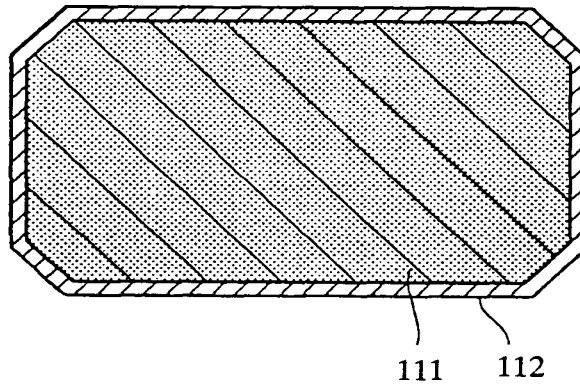


Fig. 12A

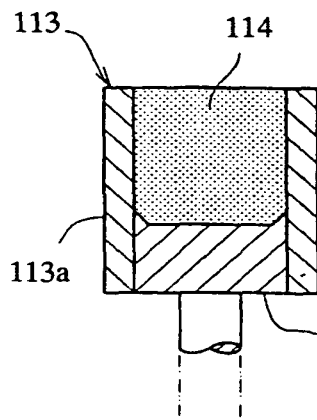


Fig. 12B

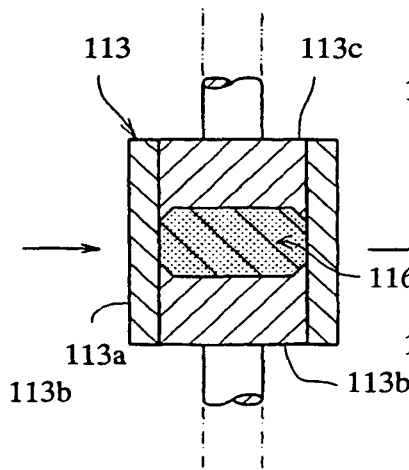


Fig. 12C

